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UNIVERSITY OF MICHIGAN.

PHILOSOPHICAL PAPERS.

FIRST SERIES, NO. 1.

UNIVERSITY EDUCATION.

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UNIVERSITY EDUCATION.

What, specifically, does a University exist for? One answer to this question might be gathered from the following words of the founder of an American University, "I would found an institution where any person can find instruction in any study." Another, coming to us as a pure, clear echo from the world of ancient Greece, is suggested by the following passage from Plato's Republic:

"After this period, I continued, these choice characters, selected from the ranks of the young men of twenty, must receive higher honours than the rest; and the detached sciences in which they were educated as children must be brought within the compass of a single survey, to show the co-relation which exists between them, and the nature of real existence."

From these words of the modern American and the ancient Greek, respectively, there might, I say, and no doubt ordinarily would, be inferred two very different ideals of that "higher education," of which—whatever it may be held to consist in—the University is on all hands held to be the instrument or the purveyor. According to the Platonic sense, the school or "academy" of Plato was itself a University, a University with but a single teacher, and that teacher none other than Plato himself. In a modern University, organized to enable "any person" to

* A new version, almost wholly rewritten, of an address delivered at the founding of the Philosophical Society of the University of Michigan, to whose members it is now respectfully dedicated.

"find instruction in any study," it might happen that Plato, brought to life again and installed as a professor, would be lost in the crowd of teachers, and that, being lost, he would be seriously missed by no one. According to the one ideal, the higher education would be a training, not primarily of the memory, but—after the memory had been already trained and stocked with detailed and extensive knowledge respecting particular facts and orders of facts—of the comprehending intelligence, and this with relation to the highest goal of intelligence, the comprehension of the "nature of real existence," the knowledge of ultimate truth, together with the power to detect, and the will to condemn, all essential shams and falsehoods. According to the other, it would consist in absorbing and practically exclusive devotion to one or two out of an indefinite multitude of different lines of study and investigation, or in a more supercial cultivation of many of them, guided by the arbitrary bent or the subjective curiosity of the individual, or by the hope of a future private advantage, but without any regard to the problems of "real existence" and the application of ultimate truths to the development of character. Of these ideals, the one would have to be termed distinctly ethical; the other would appear to have no ethical character whatever. The one would summon the student to the highest and most absolute "courage of truth." The other might, apparently, be pursued in the midst of complete indifference to the nature of universal and ultimate truth, or even consistently with a profession of knowledge that no such truth can be known by man. The ideal suggested by Plato would be termed synthetic, and the other analytic. A University organized in accordance with the former ideal would have, for its natural motto, *non multa, sed multum*, or, still better, *multum apud multa*. The maxim of its rival, following the

other ideal, would naturally be, simply, *multa*, or a selection from among the *multa*, in the shape of one or more "specialties" (a "major subject," for example, and one or more "minors.")

Of the two ideals described, the one suggested by the ancient philosopher would be termed philosophical, and the other—according to the current use of this term—scientific. The former would make the completion of human culture, to which, supremely, as is obvious, the "higher education" should minister, to depend on following up the acquisition of a sufficient knowledge of the "detached sciences" with a comprehensive view of that harmonious totality which they must constitute and, above all, of that absolute world of "real existence" (including man himself) which they purport to reveal. The latter would encourage the student, *as a student*, to ignore all but the most limited "views of totality" and to centre his ambition and energy mainly in the attainment of the most complete knowledge of the detailed facts of one or more "special sciences," and of their particular visible relations or "laws."

It is certain, now, that in each of these ideals of higher education an element is insisted on, that really belongs to the completed conception of such education. It ought, I think, to be admitted as equally certain, that either of them, taken by itself, and interpreted as exclusive of the other, is not merely defective, but fatally so. In other words, each of the elements mentioned is required in order to render the conception of the higher education of man not only formally but substantially complete; or, each is not merely desirable, but also essential, as a factor of the higher culture, which every student should bear away with him from the University.

Or, am I wrong in assuming that the supreme end of

all education is humane culture—the perfected and rounded development, in each of its subjects, of essential manhood,—and that the like is supremely true of that higher and highest formal education, which it is the recognized function of Universities to provide for and direct? And is it wrong for me to suppose that, among the obligations which rest upon those who, as teachers, or otherwise, are called to take a directive part in the life and work of Universities, the supreme one is, to know, more fully, if possible, than all others, wherein the perfect education or culture of a human being consists, and, so far as in them lies, to see to it that the conditions necessary for its attainment are by themselves, as active guardians of the University and of its student patrons, ever vigorously maintained?

There are abundant reasons why the problems suggested in the foregoing should receive attention among us at the present time. The chief of these is to be found in the circumstance that, especially within the last decade, and at a number of different centres, the higher education in this country has begun distinctly to take on a new and advanced form, and to be avowedly directed toward the realization of ideals, which are described as the form and the ideals of the "true University." The true University, which is, by hypothesis, something other and more than a high school, college, or technical school, has in the past had no proper existence on American soil; this is the truth which is now coming to be currently recognized and admitted. Along with this has come the consciousness or conviction that the times are ripe for something higher and better than the best that our educational institutions have in the past been able to offer; that the nation needs it; that the higher practical exigencies of our American civilization demand it; and that promising students, in

sufficient, and, indeed, rapidly growing, numbers, are ready to seek and receive it. To endow new foundations for meeting this need, millions have latterly been given. Old and strong foundations are gathering up their forces for the same end. Others, while distinctly checking the aspiration to occupy the new and higher field, are yet brought sensibly under the influence of enlarged ideals, and this influence extends with moulding effect even to those schools which must always continue to occupy inferior grades, but from which the University must always continue to draw its living recruits. And not only is all this true, but also the important practical problems involved have been and are receiving earnest attention on the part of those, on whom most conspicuously and directly responsibility rests. Noble and, in my opinion, just views have been publicly expressed by them respecting these problems; and my object can not be, and is not, to try to do better what has already been done so well, but only, or mainly, to emphasize and develop a little more fully a phase of the general subject, which I think particularly deserves such treatment.

Let us look for a moment at the University, in its historic and intrinsic distinction from the College.

Colleges first sprang up under the shadow of the mediaeval Universities. The latter, first founded, were devoted to the cultivation of the "*universitas literarum et scientiarum*"—or the total realm of the intelligent interests of men. They were free and independent centres for the communication, by lectures, of the ripest thought and most advanced knowledge, which men of commanding ability had at their disposal. The attendance, of minds eager to assimilate the best wisdom of their times, speedily reached enormous proportions. Soon other Universities were founded under the express patronage of the

church; and when the students in attendance came to be numbered by thousands and tens of thousands, advantage was taken of the occasion to found "Colleges, i. e. boarding-schools for poor students, in which lectures of a merely mechanical nature were given, *summae* or extracts being dictated to the students to be learned by rote. Persons who had money were also admitted to these lectures on the payment of a certain fee, and so attention was diverted, gradually, more and more from the public (or University) lectures."* So in time it came about that in England "the Colleges superseded the Universities," as, almost in our own day, Sir William Hamilton discovered to his great indignation and vexation. In Germany, on the contrary, the Colleges, as appendages of the University, were early abandoned. But another independent and worthy place was found for them. They could not take the place of the Universities, but they could perform the highly needful and honorable function of preparing students for the higher and freer studies of the Universities. The mediæval College idea bore a worthy and important fruit in the German "Gymnasium."

Whatever defects we may think it necessary to acknowledge in the German University, as actually organized and conducted, it can not be denied that it represents the completest result, to date, of the free and independent development of the orginal University idea. The German University is a place for the freest, fullest, most unrestricted cultivation, communication, and acquisition of any and all knowledge, except, of course, that which is obtained only through actual and active connection with the practical affairs of life. It is a workshop both of universal intelligence and of intelligence specialized almost

*Brookhaus' *Conversations-Lexikon*, 11th ed., Art., "*Universitäten.*"

ad infinitum as regards its subject-matter and direction. Within its walls are considered both the highest and most general and also the most special and humblest of the interests of human life which lend themselves to scientific treatment. There forces have been trained and developed, which have permeated, transformed and uplifted, not only the German nation, but also, measurably, the other nations of the civilized world. Through them, more than once, the German people have learned that greatest of all lessons, the one without which all others are vain, the lesson of self-knowledge. It has learned, I say, in a large and deep measure, to know itself, and in learning this, to know "what it must will,"* and in fact to will and act accordingly. The spark, which kindled the spiritual fires of the reformation, was first struck at the University of Wittenberg. It was the Universities, according to the admission of one of the defeated, that conquered at Sadowa and Sedan.

The forces marshalled in a University for the purpose of instruction and research are distributed, according to the traditional *schema*, into four faculties the faculties of theology, law, medicine, and philosophy. Of these, the first three are organized with special reference to the requirements of preparation for the following of one of the so-called "learned professions." The philosophical faculty alone has no such special aim, and represents, in the organism of the University, most fully and unqualifiedly the fundamental idea of the University, the idea of the freest and most unrestricted pursuit and promulgation of any and all truth for its own sake alone, But it is not to be supposed that the faculties of theology, law and medicine exist in rigid independence of each other and of

*It has been finely said of Frederic the Great, "*Er weiss was er wollen muss.*" Trendelenburg, *Kleine Schriften*, I. 63.

the philosophical faculty. On the contrary, they are, ideally, offshoots or branches of the latter. In them the University idea is not lost, but simply specified, or particularized. In *true* University faculties of law, theology, or medicine the special and limited truths, laws, and facts of these several departments of knowledge are not merely, though, for obvious practical reasons, they must be mainly, set forth in their special and limited character. The instructor, or lecturer, maintains in himself the sense of their universal relations, or of their connection with the realm of all knowledge and of all reality; and he carefully cultivates this sense in his pupils or hearers. Thus the special school, of whatever name, organized and conducted as a living member of a true University, exercises a liberalizing influence and fits for a "liberal education"; its students receive a liberal culture; and by this sure mark upon their minds and characters its work is distinguished from the best that—unless by accident—is accomplished by a purely "technical school," i. e., by any special school organized by itself and without a close University connection.

Between this University ideal of human education and the life, work and organization of our American institutions for higher education it is a mild statement to say that there has been in the past a decided lack of correspondence. The semblance of a University—such has been the rule of the past—and the apparent right to appropriate the name of one have been secured only through the grouping together, in one place and under one board of formal control, of several professional and technical schools or faculties, along with a College and a College faculty. But the relation between the schools and the College has been mainly nominal and external. The College faculty has not been a "philosophical faculty," nor

has the College been qualified to function as the life-giving centre and (to change the figure) the standard-bearer of a true University. And in England the state of things has been no better.

The English and American College is a mixture and development of elements contained in the mediæval "College or Boarding-school" and the German Gymnasium. Says President Gilman, "The College implies, as a general rule, restriction rather than freedom; tutorial rather than professional guidance; residence within appointed bounds; the chapel, the dining hall and the daily inspection. The College theoretically stands *in loco parentis;* it does not afford a very wide scope; it gives a liberal and substantial foundation on which the University instruction may be wisely built." The College student is treated as being under discipline; and the College instructor is a disciplinarian. To the former daily tasks are set, of which it is the function of the latter to exact the performance. Neither the one nor the other is free; the student is not, for obvious reasons; and the freedom of the teacher is restricted, for the double reason that his work must, always and necessarily, be in a very considerable measure mechanical and that, in proportion as it is such, more of it can be and is required of him.

Of course, what I have said must be taken with such grains of salt as the case may seem to require. Its general truth is obvious enough. But there are Colleges and Colleges, as we all know, and among them are some, whose rapid growth and expansion, beyond the standards of earlier years, are a matter of common knowledge. It is two or three of the foremost of these that have begun to abandon, if not completely, at least largely or mainly, the restricted aims and conditions of the College and are rapidly adopting those of the University. The College

faculty is in process of becoming the philosophical faculty of a University. That "freedom of teaching and learning," which the greatest Universities have proudly claimed as their choicest possession, is the ideal, which these Colleges are seeking by their self-metamorphosis to approach or realize.

In addition to the old Colleges referred to, there is a limited number of institutions, of more recent foundation, which, adopting from the beginning the University name, have either with growing distinctness acknowledged and with constantly accelerated steps approximated toward the University ideal (as in the case of our own University), or (as in the single case of the Johns Hopkins University, of Baltimore) have from the start actually carried out, in some most important respects, the University idea, as had not previously been done in this country, and with a degree of success that has deservedly attracted unusual attention.

It is plain that the problem of true University education is upon us, and that if any one has anything to say on questions like those formulated or suggested in the beginning of this paper, now is the time for him to speak. The University idea is not merely knocking loudly for admission into and full recognition in the arrangements for the higher education in our country. It has already forced open the door. It is already entering, nay, has entered. It may be a welcome or an unwelcome guest; but it is here, and doubtless it has come to stay; and it is time that any of us whom it concerns—and truly it concerns every thinking man—should consider how we will entertain it.

It will, I think, subserve my purpose, if, before proceeding to the brief discussion proposed in this paper, I cite some expressions coming from two of those who have been most actively and responsibly connected with the

work of either introducing or developing University methods and ideals in this country. These expressions respect, as will be seen, the relation of Universities and University education to the formation of character, to politics, religion, and civilization, as well as the more specific questions regarding the particular forms and methods of University work.

President Elliott, of Harvard University, said, in a public address: "It would be a fearful portent if thorough study of nature and man in all his attributes and works, such as befits a University, led scholars to impiety. But it does not; on the contrary, such study fills men with humility and awe, by bringing them on every hand face to face with inscrutable mystery and infinite power. The whole work of a University is uplifting, refining and spiritualizing; it embraces

'Whatsoever touches life
With upward impulse; be He nowhere else,
God is in all that liberates and lifts;
In all that humbles, sweetens and consoles.'"

From the public utterances of President Gilman the following extracts may be made: "The object of the University is to develop character—to make men. It misses its aim if it produces learned pedants, or simple artisans, or cunning sophists, or pretentious practitioners. Its purport is not so much to impart knowledge to the pupils, as to whet the appetite, exhibit methods, develop powers, strengthen judgment, and invigorate the intellectual and moral forces. It should prepare for the service of society a class of students who will be wise, thoughtful, progressive guides in whatever department of work or thought they may be engaged." "The University is a place for the advanced special education of youth who have been prepared for its freedom by the discipline of a lower school. Its

form varies in different countries. . . . But while forms and methods vary, the freedom to investigate, the obligation to teach, and the careful bestowal of academic honors are always understood to be among the University functions. The pupils are supposed to be wise enough to select, and mature enough to follow the courses they pursue."

To the foregoing extracts, from men of our own time and country, I add also the following, coming from the other hemisphere, and of earlier date. F. A. Staubenmaier, formerly Professor in the University of Freiburg, in his work on "Universities and the Organism of the University Sciences," * calls attention to the profoundly religious spirit in which the Universities were founded. Our ancestors, he declares, in establishing the "High Schools or Universities," professed "to be acting, not of their own motion and in their own name, but rather as instruments of the divine Spirit that controlled them, and consequently in the name of God. Hence they termed the Universities 'workshops of the Spirit of God,' and this in view as well of their origin as of their destination." The sphere of the University, he declares, is "none other than that of human intelligence itself," and "the sphere in which human intelligence moves is the infinite sphere of truth itself." Universities are concerned with the cultivation, "not of an isolated portion of truth, but of truth itself in all its extent; nor with the development of a particular side of the human spirit, but of this spirit in its entirety, or considered in the unity and totality of its developments." "A University is nothing other than the spirit of an epoch raised to its highest potency. It is the intellectual reflex of the life of humanity, considered with reference to the function of cognition. It is the faithful mirror, in which

*Des Universités et de l'organisme des Sciences universitalres, etc. Translated [into French] from the German by N. J. Schwartz. Liége, 1835.

man entire—or, humanity—views himself in his true nature and his veritable life. In other words, in a University the spirit of man has not only the consciousness, but also the science, of all the relations assigned to it for time and eternity." Open alike to all, whether rich or poor, high or low, without distinction of persons, the Universities could only be the "product of the Christian spirit," which emancipated intelligence by removing the obstacles that the ancient world had placed in its way and bursting the fetters in which it had been bound.

Finally, Dr. C. Hoefler, in his address on "The Philosophical Faculty,"* says: "This constitutes a University what it is, namely, that in it no part [no special science] can dispense with its connection with the rest, or the whole; different parts, or sciences, are connected with, and thus dependent on, each other, either through their content or their method, and all through their inclusion in that higher unity, in the knowledge and comprehension of which true science consists." In like spirit with Staudenmaier, Hoefler regards the University as specifically that one among the institutions organized for the purposes of human education, in which man is to be brought to the full and final knowledge of himself and from which, consequently, men are to be sent forth with the best preparation for the direction and management of characteristically human affairs, whether in Church, in State, or in any other of the relations of human life. A University is held by our author to be, not merely a "scientific institution," but—and this more essentially than any other educational institute —an "*ethico*-scientific" one.

Comparing these utterances, coming, on the one hand, from some of those who are now taking the initiative in

* Die philosophische Facultät, ihre Stellung zur Wissenschaft und zum Staate. Eine Rede. Prag, 1857.

the development of University education among us, and, on the other, from men standing, as it were, in the midst of that old-world stream of University life and work which has flowed on continuously since the time of its early origination, we observe a general agreement. All unite in ascribing to the true University an ethically uplifting, a "spiritualizing," character. All are at one in the sentiment expressed in these golden words: "The object of the University is to develop character—to make men." Both the German and the American intrepreter, again, connect with the University the notion of a freedom of intelligence, the one ascribing its origin to a spiritual power that unfettered the intelligence of man, and the other finding it to be an essential note of the University that there is permitted and exercised in it a freedom, for which prior discipline is requisite. And if the American opinion lays more conspicuous stress on the specialized character of the knowledge to be sought at a University, while the German emphasizes more its universal character, a little reflective consideration may convince one that the difference is more one of inflection, (so to speak,) than of essential thought or intention. In this connection I would add, that the like may be true respecting the two opinions cited and set in contrast at the very beginning of this paper. Certainly, an institution organized so as to enable "any person" to "find instruction in any study" would, at least, not exclude provision for that study, the object of which is intelligence and its objects on their universal side and in their universal relations, or the bringing of all sciences "within the compass of a single survey." And I may add that, as a matter of fact, the guiding powers of the University, from the words of whose founder my first citation was taken, not only practically understand them in the sense suggested,but are also proceeding not without a healthy ap-

preciation of the truth that "any study" ideally and really implies *all study*, or that the spring and life of the special, and the indespensable condition of its educating power, are in the *concrete universal*, to an appropriate study of which, accordingly, every University student is to be encouraged. And Plato's idea of *universal or comprehensive intelligence* expressly presupposes, as is seen, the previous or accompanying knowledge of *many sciences.*

In view of this so general agreement among thoughtful men, in responsible positions, respecting the true character and functions of a University, why do I venture to offer an additional word on the subject? It is, I repeat, because there is one phase of it, which, owing largely, or solely, to special local conditions, needs, in my judgment, especially to be emphasized and developed. I allude to the question regarding the distinct place and function of philosophy in the University. On this question, in its practical bearings, we are, I think, on this side of the ocean, less clear than regarding the other one, respecting the right and place of all the special sciences in the University's domain. The healthy tendency of the American mind toward the definite and the (supposed) "concrete," (in opposition to the supposed "barren abstractions of philosophy,) and the practical exigencies of our growing national life, have been the united occasion of the far more rapid development among us of special, than of general knowledge. In special and technical sciences, America may fairly be said to have rendered, or be rendering, herself illustrious. In philosophy—which is the coordination of all knowledge, the science of science itself, the comprehension, by intelligence, of its own nature and of its universal relations, with the accompanying power to give to nature her universal interpretation and to define for human life and activity their supreme ideals, whether in

society, in politics, in the world-life of humanity, in art, or in religion—one may say, without excessive exaggeration, that scarcely a beginning has been made. Now, while one of our most esteemed American writers of fiction has recently said, that "we are misled most of all by success, which seems the test of merit, but is never given as a reward; it is only the most inscrutable of the dispensations of Providence," yet I think few of us will be diverted by this coruscation of epigrammatic wit from pinning much of our faith to the more vulgar adage, that "nothing succeeds like success." A healthy instinct, which profounder knowledge confirms, assures us that, independently of all questions of "merit" and "reward," success is not only the law of nature's operations—science is showing us that the universe is a growing success— but also of human intelligence, when applied seriously, perseveringly, and without bias to the cognition and interpretation of reality. On the like basis is founded our reasonable assurance that the test of real success in the affairs of intelligence is to be found in its fruits, or in the accession it brings to man of power over nature and over himself. Under these circumstances it is no wonder if the men of our generation in our own land, dazzled by the successes of the special sciences, and unable to discover any corresponding or equal fruits of philosophical inquiry, are often inclined to look upon the latter with an indifferent or, even, an unfriendly eye. Such persons are likely to think that any success that may have ever, in any place, accompanied the cultivation of philosophy, must have been ephemeral and superficial—a profitless success of mere words, of hair-splittings, and the like. Fruitful success, they may say, is the test of reality, of importance, of truth. Before claiming a place, and, especially, an all-important place, in the scheme of a great University's life and work, let philosophy

first demonstrate its right to do so, by showing, according to the above-mentioned test, that it really exists, as a stable, important, and fruit-bearing science.

I have thus forcibly stated the grounds of possible hesitation concerning, or even positive objection to, the emphatic recognition of philosophy in the organization of the work of our rising Universities, because I am thoroughly in sympathy with the *principles* involved in them. Unless philosophy can claim and hold her place by a right of the kind above described, her only dignified and reasonable course must be to remain silent. Her praises will never be rightly and effectively sung, until, like the praises of the special sciences, they are sung by others than adepts. Unless the lesson of her worth is, in a sense, known and read of all men, she will make but a sorry appearance in proclaining it herself. In spite of all this, nay, really in consequence of it, I am prepared to urge the indispensableness of philosophic culture as an element in University education.

However, I become conscious, on reflection, that in the foregoing I have in part been tending toward over-statement. The indispensableness of philosophic culture, and all that this implies, as an element in University education, does not really need to be so much urged, as explained. There are few among those, whose life and work bring them into close practical connection with the problems of the higher education, who would meet the claim of philosophy for that place in a University that really belongs to it, with such an unqualified challenge as that above supposed. It can not be complained that the stream of University development, at some of our older educational centres, has been directed iuto so narrow a channel, that philosophy has been washed ashore. On the contrary, the development of technically philosophical instruction and

the growth of the philosophic spirit have gone hand in hand with, or have followed closely after, the rapid expansion and elevation of other branches of University education.* And at other centres, of more recent origin, or yet to be created, philosophy has no need to fear that she will be rudely received. The American sense of "fair play," if nothing else, would protect her in her natural rights. Besides, the American mind has already given evidence of qualities that, in my judgment, peculiarly endow it for the creative dexelopment, as well as the responsive reception, of philosophic truth. Its very tendency, above mentioned, toward the definite, experimental, and concrete, will serve —are already serving—to keep it, when occupied with philosophical problems, from entertaining hospitably those unfruitful, uninstructive abstractions, which have constituted so large a portion of the currency of philosophy among our English-speaking ancestors and contemporaries. That there is at the present time a positive drawing of the American mind toward philosophic study and reflection, is made evident by many phenomena, conspicuous to an observing eye. Abundant reason why this should be so is found—apart from any thing that may be peculiar in the present stage of our national development—in the fact that the American nation is a child of ideas. Religious and political ideas, and ideals, cradled our nation in its infancy, and have been the spring and the strength of all its growing life. In no country is character more honored than among us. And nowhere, in spite of all our moral shortcomings, is there a stronger sense of responsibility for the subordination of all things—all victories of science, all conquests of material power, all the relations, all the adornments, of life—to the service of truth, goodness and

* See Appendix.

beauty; and truth, goodness, and beauty are the deposit, incarnate in nature, and proposed, through nature and through the nature of man and of his intelligence, *to* man as the supreme norm and ideal of his conscious and voluntary activity, that it is the highest function of philosophy to comprehend and interpret.

The ultimate end of human education is, unquestionably, human wholeness, completeness, perfection. The attainment of this end is human self-mastery, and self-mastery is steadfast liberty. Human self-realization is the realization of a not merely formal but substantial freedom; or, of a freedom that is not simply negative, consisting in the absence of unwelcome interference with one's powers of thought and and action, but positive, and regulated—self-regulated—by a fixed principle within. It is not deliverance from control, but the positive establishment of a steady and successful self-control. Now, human nature, in a very obvious sense, is a decidedly mixed and varying value. A thousand different springs, of feeling, appetency, desire, volition, are centred in it, and in diverse proportions in different individuals. It is this diversity of proportion that gives to individuality its specific and differentiating color. The end of education can not be to efface this color. Its object is not to introduce a colorless uniformity among men. But the theory of education proceeds on the hypothesis that the common end of all men is self-mastering freedom, and that the realization of the latter is conditioned on intelligence. The freedom of man is a "freedom through the truth"—the only complete freedom that is thinkable. In proportion as men attain to this freedom, they are indeed "of one mind," but this "one mind" continues to be reflected in their individual experiences, dispositions, and characters with hues indefinitely more multiform than those of the rainbow.

The University, in the order of institutions established for human education, is the one devoted to the fullest and freest cultivation of this universal condition of human freedom. It is devoted to the fullest and freest cultivation of universal intelligence, or to the quest and recognition of any and all truth, and this for the sake of truth alone, and of the freedom which is through the truth. With what reason its intrinsic or immanent end can be said to be "to develop character—to make men," is obvious.

But the University, as we have seen, is the place where a great variety of so-called "special sciences"—a variety constantly and rapidly increasing—have their natural and rightful home. The "special" character of these sciences is founded on the fact that in each of them inquiry is primarily directed only to some particular phase or department of the whole realm of possible objects of knowledge. Attention is abstracted from all but a special and definitely restricted order of facts, phenomena, or relations, to the analytic comprehension of which the intelligence of the inquirer is particularly directed. The prime object here is not the knowledge of all truth, but of a portion of truth. It is not the development of universal, but of special intelligence. Besides, each one of these sciences subserves some special practical end of human existence, other, apparently, than the universal one of developing character or enabling the adept in it to be simply true to himself and to the nature of man. The student who approaches the special study of it is presumed to have this special end particularly in mind. He chooses his study with reference to its prospective practical bearing on the accomplishment of some particular personal ambition or end in life.

How, now, is the cultivation of special sciences to be connected with, and made subsidiary to, the universal,

humane, ethical end of all education? For it is perfectly plain that this connection will not necessarily establish itself spontaneously, as it were, and of its own accord. The special sciences may be, for they often are, cultivated without any express reference to the end mentioned, and when they are thus cultivated it depends on nothing better than accident whether their bearing on this end shall be merely negative or positively perverting.

Now, I assert that if the special sciences are to be cultivated purely as such, with reference, I mean, only to themselves and to the particular ends or applications which they may subserve, the right place for them is not in a University, but in special technical or professional schools, or in colleges in which various "studies" are grouped together in a loose aggregate, on no higher principle than that of immediate convenience, and without any pretence of realizing the catholic idea which is fundamental for the University, the idea of the unity of all truth. Only thus can such cultivation of these sciences be carried on without false pretence and the ethical perils consequent thereon. For, the University idea *is* this of the essential unity of all truth and the inclusion, as Hoefler has expressed it for us, of all sciences "in that higher unity, in the knowledge and comprehension of which true science consists." And the unity of all truth is the fundamental idea of philosophy. The conception of the University is a specifically philosophical one. All sciences have their place in the University because they really bear out this conception, for which reason also the University is their only true and perfect home. And it is through the active, virile comprehension and exhibition of all sciences in this their relation to the unity of all truth that not only true mastery of them is demonstrated, but that they acquire their true educational value.

It is often crudely said of the special sciences—as if this were their peculiar and proudest distinction—that they are concerned with "facts." This distinction is not peculiar to these sciences, as contrasted with universal, or philosophic, science. But to be concerned only with facts is a source, not of scientific strength, but of weakness. Indeed, thought occupied with pure fact, were this possible, would not take the first step toward scientific intelligence, comprehension, or real knowledge. It is an old story that facts, taken by themselves, are "brute." To get at them in their (imagined) purity, you must isolate them, and contemplate them in their isolation. But the more you isolate them, the more completely do you cut yourself off from the possibility of comprehending them. It is not the mere apprehension of facts, but the perception of them in their relations, that constitutes science. It is only in their relations that facts are intelligible. Now, it is the undoubted tendency of special science, as such, to exalt fact and to neglect relation, or, in the technical language sanctioned by philosophy, to regard more the "particular" than the "universal." This is a tendency, and a danger, that results from one of the fundamental necessities of special science, the necessity of a division of labor, of restricting the field of individual inquiry, in order to the attainment of the greatest possible "precision of knowledge." How real and great this danger is, is forcibly expressed in the following recent utterance of Professor Huxley's: "The man who works away at one corner of nature, shutting his eyes to all the rest, diminishes his chances of seeing what is to be seen in that corner; for," he adds, "as I need hardly remind my present hearers, that which the investigator perceives depends much more on that which lies behind his sense organs than on the object in front of them" The exactest apprehension and

most careful tabulation of any number of facts does not of itself constitute science. The memory charged with all the contents of an encyclopædia is a certain preparation for comprehending intelligence, but can not take its place. The complete scientific identity of any the least fact is not established by mere cognizance of the fact, but by the comprehension of its relations. And the lines of its relations run out into all the ends of the universe. "*Tota in minimis existit natura.*" You may, as an investigator, make it your special task to investigate nutshells; but you will never arrive at the end of your work till you find and recognize "*tota natura*" in a nutshell. This is one of the truths implied in the words quoted from Professor Huxley. It is the truth of the unity of nature—the comprehension of all "facts" in one whole, in each of which facts the nature of the whole is present and revealed in a specific form.

The science which has to do with wholes, especially, is philosophy. Philosophy is the science of totality, and, ultimately, of the totality of existence, and this, of course, not in (a really impossible, but oft-essayed) abstraction from the parts, members, or particular "facts" that constitute it, but in vital unity and organic identity with them. It is the science of principles, and, ultimately, of the universal principle, in the like vital and concrete relation to the varied facts of known reality. And so it is, in aim and tendency, and, I think, in substantial achievement, the science of absolute, or of the universal, reality, viewed as the power and substance of the whole realm of "phenomena."

It follows from the foregoing that, so far from a schism existing by nature between the special sciences and philosophy, the former naturally tend toward, seek, and demand the latter for their own completion and perfection,

while the latter requires the former as the material, out of which, so to speak, its own body is to be constituted. And so it is, that the greatest and most successful efforts at philosophic comprehension have always followed upon and grown out from the more or less vigorous and successful prosecution, during a considerable portion of time, of special and "exact" inquiry. The greatest men of special science have been, and are, among the first to recognize the need of philosophic science. And, on the other hand, the greatest philosophers, the Platos and Aristotles, the Leibnitzes and Hegels, (and I am willing to leave a blank, to be filled up by the "courteous reader" with the name of any British philosopher whom he may think deserving of mention) have been those whose knowledge of the special facts of nature, man, and history could fairly be termed encyclopædic. The particular and the universal, not simply repel, they also, and even more irresistibly, solicit each other.

Thus any study ideally and really implies all study, some science all science, and partial intelligence completed intelligence. Totality of view, unity in multiplicity, the essential—but not abstract, or numerical—oneness of the manifold—this is presupposed in all knowledge. The consequence is that he who has taken some steps in the path of such knowledge is moved by the very law and the inherent impulse of intelligence to generalize, to universalize, and by an "anticipation of nature" to form and entertain a conception of the totality of nature or of real existence, on the basis and after the analogy of that which he already sees. If the anticipation is premature, not being under the strict control of scientific intelligence, the result will be a one-sided and superficial conception or "philosophy" of nature and all reality, having only the value of a fractional truth, and sure, in its consequences, to bear all

the character of a falsehood. Such half-truths, or fragmentary conceptions, are the purely "physical," materialistic, mathematical, and mechanical views, or "philosophies," of all existence. To protect students against such crudities should be one of the functions of University instructors. And this is to be done, and can effectually be done, not by discouraging the philosophic tendency, not by placing all comprehensive views under a ban, but by encouraging them to the utmost and at the same time showing, or allowing to be shown, what the truly comprehensive and total views are, and how they are to be reached.

The method of the special and "exact" sciences prevents their adepts, *as such*, (that is, so long as they rigidly confine themselves to the limitations of what is termed the "scientific" method) from carrying these sciences forward into the sanctuary of philosophic interpretation and so rendering them ideally complete. This method is abstract, formal, and (the term is to be understood in no invidious sense) superficial. It abstracts, in considering the relations of phenomena, from all but the relations of space and time, of co-existence and sequence.* These relations belong, or are held to belong, only to the "form," and not to the essence or substance, of phenomena. In this sense they are superficial, or lie on the surface of things; are external to them, mechanical, mathematical. So the modern sciences seek methodically to effectuate a provisional divorce between appearance (under the more dignified name of "phenomenon") and ultimate reality, or between the partial, and apparent or approxi-

*"The business of science is simply to ascertain in what manner phenomena co-exist with each other or follow each other, and the only kind of explanation with which it can properly deal is that which refers one set of phenomena to another set." (John Fiske, *The Idea of God*, etc., pp. 101-102.) The foregoing is one of the common-places of the logic of modern "science."

mate truth of sensible fact and the essential and whole truth as it would appear to complete knowledge. They abstract, in fact or in tendency, from quality, so as to regard only quantity, i. e., quantitative relations.* So they become exact, after the ideal of mathematical exactitude, but at the expense of being abstract and one-sided.

That which thus constitutes the strength and the merit of the sciences, considered in their special and exact character, marks their limitation and defect, from the point of view of complete intelligence, or philosophy. The relations, which are the immanent soul and life of phenomena and the inner ground of their final explanation and comprehension, are more than relations of co-existence and sequence. The world is more than one immense and complex case of the quantitative "re-distribution of matter and motion." The differences among things—between the so-called inorganic, for example, and the organic, or the natural and the moral—are more than differences of quantitative distribution. That this is so, and that the ground of the complete explanation of all phenomena—that, the knowledge of which would simply be the knowledge of the phenomena themselves in their full value and significance—is to be found, if found at all, in an order of relations, by which all quantitative relations are themselves conditioned, all men, instinctively and practically, if not explicitly and theoretically, recognize. The conspicuous leaders of British thinking, the Lockes, Humes, Mills, and Spencers, have recognized this. But, the limitations of the modern scientific method having, in one way or another, become to their intelligence as a second nature, it has been impossible for them in their treatment of phil-

*"This which we call exact science is in reality quantitative prevision." Science may be "considered as the development of qualitative prevision into quantitative prevision." (Spencer, *Psychology*, Vol. I, pp. 339-340.)

osophic questions, to go beyond them. The interior truth of nature and of all existence has remained to them a confessedly insoluble problem. And their "philosophy" has consisted in the emphatic assertion—it could scarcely be said to have even simulated the form of a demonstration—that the problem was insoluble for all and every human intelligence. And the result has been the familiar nominalism, scepticism, subjective idealism, phenomenalism, agnosticism—to mention the different names, under which, alternately, one and the same spectre of philosophical negativism has been paraded—of some of England's "sober thinkers."

It were a theme worthy, for its instructiveness, of a separate and exhaustive treatment, to trace the connection between the nominalistic negativism of the national philosophy—the seeds of which appear away back in the middle ages—and the early decay and persistently suspended animation of the English University. The connection is assuredly not accidental. The national intelligence, in the sphere of theoretic knowledge, having thus willfully and avowedly abdicated its highest function, the University, according to the conception of it which we have above had before us, was not only without reason for existing, but unable to exist and be maintained, otherwise than in name. For the University is, as it were, the external sign and embodiment of that unity of all science, of which philosophy is the conscious, inward substance. Without positive philosophic science, held in the firm grasp of clear and reasoned knowledge and with masculine conviction, the University becomes a mere sign without signification, a dead body whose scattered members are no longer held together by the power of a single life. It becomes only a *name*, bearing out, thus far, that spectral theory of nominalism which is the sorry fruit of philo-

sophical atony. The connection between the sciences being lost, or, rather, not having been once grasped, they may be, and are, cultivated in the current "exact," but ideally incomplete, way, apart from the common centre of a University, and the problem, how to derive from them their true educational value, remains unsolved. They can be prosecuted and studied from motives of curiosity, or for the sake of prospective material advantage, or even with the higher and purer motive of the special investigator, but their ethical quality, their relation to the development of spiritual perfection in man, is unapparent.

The knowledge of nature has its distinct and priceless importance for the supreme ends of human education, because nature, like man, is a spiritual value. Such phrases as, "The communion of man with nature," "The reaction of natural conditions on the character of human life," and the like, are not mere phrases without objective meaning (like "Jack and the Bean-stalk"), but the expression of truths of high significance, just because of the real spiritual kinship of man and nature. It is in this kinship that the unity of man and nature resides, as it is also on it that the unity of science is founded. Philosophy is the scientific comprehension of this spiritual unity, in itself, in its conditions, in its implications. It is by virtue of this its spiritual character that all existence has ultimately, for human knowledge, a dynamic quality, at once real and ideal—nay, real, just because it is ideal, and ideal, because real. It is in this that all things "consent together," so that, in spite of their specific and individual differences, they are yet one, and so that each smallest existence, in the remotest corner of nature, when not merely "seen," but *known*, becomes a "mirror of the whole universe." It is the instinct of this spiritual unity that is the real motive power of all discovery of the laws of nature. This instinct,

to Professor Tyndall, is the "scientific imagination," comparable to a "lamp, which indeed does not burn and give any light till it has been lighted by the wick of observation and experiment. But the light which subsequently streams forth may, in consequence of the mind's own power, exceed a million times the original light of the wick. Indeed, we may say that the two lights are incommensurable: a few apparently unimportant and isolated facts may suffice, through their effect on the mind, for the development of principles, the range of whose application is incalculable."* To Professor Stuart, of Cambridge, it is the "electric spark of genius," which "calls together" that "mere valley of dry bones," to which he likens even the best-tabulated "facts" and "makes a living body of them."† And it is this that "lies behind the sense organs" of the investigator, and on which, according to Professor Huxley, "that which the investigator perceives depends much more than on the subject in front of them."‡ This instinct, this divining power of the mind, which enables the investigator at the beginning of his labor to put to nature the "*prudens quaestio*" which is "*scientiae dimidium*," is apt, if recognized at all by the ordinary man of science, to be treated by him simply as something "mysterious." It is a convenient faculty of "subjective thought," an exclusive property or instrument of the thinking inquirer, indispensable indeed for his progress, but without any objective correlate in nature. It is a private and exceptional means of investigation, to be applied externally in scientifically manipulating the phenomena

* From Professor Tyndall's *Lectures on Light*, cited in a German work, from which the above is a re-translation.

† J. Stuart, A Chapter of Science; or, What is a Law of Nature? London. p. 22.

‡ See above, p. 22.

that nature presents to observation, but to which nothing verifiably corresponds in nature herself. For nothing, by the abstract, partial, and arbitrary methods of modern "exact science," is capable of being objectively verified, except bare co-existences and sequences, abstract identities and differences, equalities and inequalities, considered as emptied of all ideality, thought, or dynamic life, and as mere abstract facts of existence.

But it so happens that now, when the "drift toward Universities" has fairly and finally set in among us, the sense, conscious or blind, of all that is arbitrary, unnatural, and strained in the state of things just described is being developed by the very growth of the sciences themselves. If the development of the doctrine of mechanical evolution has marked a growing, healthful, and necessary tendency of modern science toward the recognition of the at least formal and mathematical unity of all the sciences, it could at no time but be evident to a really philosophical judgment that the period must rapidly follow, when the need would be felt of going further and recognizing their substantial unity through their common relation to the organic thought that is immanent in all natural existence. That this need is already felt, there is no lack of signs.* And it will be met, if met at all, by the establishment—or, rather, by the re-habilitation, development, and perfecting—of the *philosophy of nature*, in which it will be shown that to thought subjective, or "within the mind," answers thonght objective, or incarnate in nature; that the sufficiency of the former to fathom, with any degree of success, the latter arises from the fact that both are organically one (man the head of nature, and nature, tc use a

*One of the most interesting of these is John Fiske's *The Idea of God as affected by Modern Knowledge*, which has come into my hands during the preparation of the foregoing pages.

borrowed figure, becoming "conscious of itself in man"); and that both constitute a growing revelation of the absolute thought of the Perfect, the Divine Being, who is the immanent spring of all their life, and the transcendent goal of all their separate and joint labor.

Thus I have sought just to intimate how, and with what result, the final, substantial unity of the "detached sciences" of nature is found in the philosophy of nature, and in this alone. And I have treated of this order of studies at such length for the reason that they absorb, in these days, so large a portion of the interest and attention of inquiring minds. But what I have thus argued, or urged, applies with undiminished force to every order of study and investigation.

The upshot of my argument is that, in a University, every student of a special science of nature should become conscious of the universal science of nature, and should not cease from his labors until, in addition to a masterly proficiency in following and pursuing the lines of his special investigation, he has something of a really cultivated and virile intelligence respecting the spiritual significance of the whole Cosmos, in which he is placed, of which he is an organic member, and of which the subject of his special investigation is but one aspect abstracted from the whole. In like manner, every student of particular historic events should be trained, or should train himself, to comprehend the universal logic of events, as an immanent law of spiritual progress, having God, man, and nature for its organic factors. In other words, beside knowing the facts of history, as determined by detailed investigation, he should also know their comprehensive relations and, therein, their largest ascertainable significance, as exhibited in the philosophy of history. Need I add that the "philological student," to the greatest possi-

ble knowledge of the phenomena of language and literature—grammatical and rhetorical forms—must add the comprehension of that thought which is their animating soul and substance? Well may he take to heart the words of Schelling: "It is a misuse of terms to call the mere grammarian [*Sprachgelehrte*] a philologist. In the philologist the artist and the philosopher are united. His work is the historic interpretation of the works of art and intelligence." So, too, the student of human laws, of social relations, of political economies, should not stop short of appreciating, in the investigation of *laws*, the universal nature of *law*, in the study of social relations, the universal, ethical character of these relations as founded in the spiritual nature of man, and in the examination of economies (whether actual or theoretical), the instrumental relation of all economies to the ethical ends and grounds of social existence. The student of religions should know the philosophy of religion. And is it too much to suggest, that the student of medicine should aim, not simply at knowing the empirical laws of disease and cure, but also at comprehending, through the philosophy of nature, the philosophy of cure?

I contend that, in addition to the most exact and most copious practicable information regarding the special facts and empirical laws of his particular studies, the University student should be held to the necessity of developing a distinct consciousness of the universal nature of that whole, thought-conditioned world of human experience, to which all facts and laws are related. And it is my notion that this latter "consciousness" will, in proportion to its genuineness, not appear as a mere external and arbitrary addition to the special knowledge, but as growing out of it, the latter being simply completed in the former. For, according to the results of all really positive philo-

sophic science ever since systematic thought began—as well as according to all the really concrete facts of human experience, when viewed in their wholeness and completeness—the universal is not simply separate from the particular,—in our minds, for example, or in the mind of God, —but also immanent in it. The universal is the final truth and reality of the particular itself.

And the results of such union, in the scientific and educating work of the University, of the one and the many, the universal and the particular, will be—what? First, and negatively, the avoidance of a certain most grievous sham, or false pretense, which consists in sending forth from the highest sanctuary of human education, with the title of "Doctor," or Teacher, of half-educated persons, presenting to the world, as the ostensible products of a liberal education, men, the narrow one-sidedness or specialism of whose training reveals itself in that illiberalism which consists in the riding of hobbies, the putting of fractional truths of fact in the place of the all-comprehensive truths of life. In this connection I am glad to cite the words of the recent Rector of Marburg, himself a specialist, in his Inaugural Address.* Dr. Schmidt-Rimpler, after illustrating abundantly the dangerous and even ridiculous effects of extreme and exclusive specialism, urges that "in the midst of special studies the inherent connection of all knowledge must not be forgotten. Let the hobbies be reserved for the later domestic and private use of those who have first learned to ride fn the saddle of universal, living science! This is the thing to be learned; to provide that it may be, is the first duty of Universities. He who proposes to neglect the univer-

*Universität und Specialistenthum. Rede gehalten von Dr. Herm. Schmidt-Rimpler, Professor der Medicin, etc., 1881.

sal side of knowledge and devote himself at once to a thoroughly special subject, does not need the University at all. He will do better to enter into apprenticeship under some master, it matters not whether his workshop be called Hospital, Laboratory, Library, or Study!"

Secondly, and positively, the result, as I predict, will be the realization of the more comprehensive aim of the University, which is the development in its members—along with symmetrical and catholic culture—of intellectual and moral self-mastery, and the contribution to church and state, to science, literature, political life, and religion, of leaders capable of recognizing the true ideals and of intelligently and effectively directing the nation's energies to their accomplishment.

But can this substantial, ethical result be anticipated, under conditions such as those that have been hereinbefore described? Can it be expected, without more specifically ethical and religious study and training? The last, in any well-regulated feast, is always the best. And though I have not the temerity to liken this discussion to a feast, the rule holds good here. I do indeed hold, not, certainly, as a merely personal opinion, but as one of the highest truths of science, that the intrinsic condition, and, rightly understood, the extrinsic completion, of all true and perfect science is ethical and religious. By ethical knowledge I understand the broadest and completest and deepest human self-knowledge, and by religious knowledge the comprehension of that saying, in which all religion and philosophy are summarily expressed, "The Spirit is Truth." In the former I conceive the individual as knowing himself, not alone in his personal peculiarities or in his individual differences from all other men, but also, and much more, in his organic unity with all existence—with nature, with humanity, and, in proportion to his perfec-

tion, with God. In the latter I conceive him as becoming aware of his supreme connection ("*religio*") with God, the absolute and universal Spirit, as the eternal ground of the sufficiency of his own thought (2. Corinthians, 3: 5) and of his own and all other being, and as the final law and goal of all his self-directing activity. And both of these, I repeat, speaking in the name, not only of concrete and historic fact, but also, and especially, in the name of the demonstrations which philosophic science has accomplished and which it has in the future still further to perfect, are the natural completion of all other knowledge, and not a merely external and ideally irrelevant addition to them. There is no science whatever, which, taken in its ideal wholeness and completeness, is "godless." There are, indeed, "sciences" which are abstract and special, and whose abstract and special character consists precisely in the circumstance that in them, provisionally and for special purposes, abstraction is made from the fundamental conditions and supreme ends of *all science*, and from the sphere of "real existence" considered as a whole, while attention is methodically confined to a particular sphere or aspect of phenomena and to the rules of order that are found to hold good among them. But when, abstracting, so to speak, from the foregoing arbitrary abstraction, the very lines of any special science are followed up to their ideal termination in the unity of all sciences, they are found to be connected, without a break, with the larger ethical and religious knowledge above mentioned. And so, in the name and in the form of philosophic science I would have special ethical and religious knowledge cultivated in the University for every reason, for the sake of the ideal completion and the educating power of all other sciences, for their own sake, and for the sake of their immediate unity with the highest aim of all human educa-

tion. And so will the University become in fact a "workshop of the Spirit of God."

The view taken in this paper implies that, in addition to a competent force of special teachers of philosophy, the University should possess in every member of its teaching staff a person permeated with the philosophic spirit and enlightened by a truly philosophic culture. Can such teachers, of philosophy, in particular, and then of the varied special sciences, be had? This is, in a sense, an irrelevant question. The main point is, that *they must be had, if the real University is to exist.* And in the midst of all our plans and ambitions for the development of the University among us, we must have this indispensable condition constantly in mind. My own conviction is that the condition will be fulfilled.

APPENDIX.

At Harvard College, in the academic year 1860–1861, there was a "Professor of Christian Morals" and a "Professor of Natural Religion, Moral Philosophy, and Civil Polity." The courses of instruction were announced as follows:

Religious Instruction (first half of the Freshmen year). Whately's Morals and Christian Evidences.

Logic and Philosophy (Senior year, first term). Bowen's Ethics and Metaphysics. Thomson's Outline of the Laws of Thought. Hamilton's Metaphysics. Forensics.

Philosophy (Senior year, second term). Butler's Sermons and Analogy. Bowen's Political Economy. Hamilton's Logic. Forensics.

Now (1885–1886) there are three full "Professors of Philosophy" and one Assistant Professor of Philosophy at Harvard. In addition to the courses of instruction offered by them, the "Parkman Professor of Theology" gives two courses on religious philosophy and ethics. Political Economy, or the "Civil Polity" of 25 years ago, constitutes now a separate department of instruction, in which ten courses are offered, by three instructors. The courses in philosophy, according to the catalogue of the current year, are now as follows:

1. History of Philosophy.—Ferrier's Lectures on Greek Philosophy.—Outlines of Modern Philosophy.—Lectures. (Three times a week.)

2. Psychology and Logic.—Bain's The Senses and

the Intellect.—Jevons's Elementary Lessons in Logic. (Three times a week.)

3. Elementary Philosophy in connection with ethical and religious questions.—Royce's Religious Aspects of Philosophy.—Lectures. (Three times a week.)

4. Ethics.—Earlier English Ethics.—Mill's Utilitarianism.—Kant's Theory of Ethics.—Lectures and Theses. (Three times a week.)

5. English Philosophy.—Locke.—Berkeley.—Hume. (Three times a week.)

6. Earlier French Philosophy, from Descartes to Leibnitz, and German Philosophy from Kant to Hegel.—Lectures. (Three times a week.)

7. German Philosophy of the Present Day.—Schopenhauer's Die Welt als Wille und Vorstellung.—Hartmann's Philosophie des Unbewussten.—Lotze's Metaphysik. (Three times a week. Omitted in 1885–86.)

13. Modern Discussion of the Philosophy of Nature.—Spinoza.—Modern Monism.—Spencer's Theory of Evolution. (Three times a week.)

8. Hegel's Phänomenologie. (Once a week. Omitted in 1885–86.)

9. Sceeial Advanced Study and Experimental Research in Phychology. (Once a week.)

10. The Philosophy of Religion.—Lectures. (Once a week.)

11. The Practical Ethics of Modern Society.—Studies of Social Reforms, Temperance, Charity, Labor, Prison Discipline, Divorce, etc.—Lectures and Essays. (Once a week.)

12. Philosophical Theism.—History of the chief philosophical controversies about the Being and Nature of God.—Discussions and Theses. (Three times a week, for one-half year. Omitted in 1885–86.)

The University of Michigan, twenty-five years ago, had one teacher of philosophy, who was also the President or "Chancellor" of the University—Dr. Tappan, well known through his books as an able logician and metaphysician. According to the Catalogue of that date, he gave instruction in "philosophy" to the students five times a week throughout the Senior Year, by means of "Text-books and lectures."

To post-graduate students Chancellor Tappan offered the following courses:

First Semester: History of Philosophy. I. Locke and the Developement of the Sensational School. II. The System of Kant, and the Developement of the German Speculative School.

Second Semester: History of Philosophy. I. Reid, and the Common Sense School. II. Hamilton as the Expounder of Reid. III. Cousin, and Eclecticism.

But the Catalogue does not indicate that there were were any post-graduate students at the time when these courses were offered.

At present the University of Michigan has one Professor of Philosophy and one Instructor in Philosophy, and the courses in philosophy, as announced in the Calendar of the present year, are the following:

FIRST SEMESTER.

1. Empirical Psychology. Murray's Hand-book of Psychology. (Three times a week, in two sections.)

2. Real Logic, or the Principles of Philosophy. Lectures. (Three times a week.)

4. The History of Philosophy: Ancient and Mediaeval. Lectures. (Three times a week.)

7. Seminary (Plato's Republic.) (Twice a week.)

8. The Philosophy of the State and of History. Lectures. (Twice a week.)

11. Aesthetics; or, the Philosophy of the Beautiful in Nature and in the Products of Human Art. Lectures. (Twice a week. Omitted in 1885–86.)

12. Experimental Psychology. Lectures. (Twice a week.)

SECOND SEMESTER.

3. Formal Logic. Jevons's Lessons in Logic. (Twice a week, in three sections.)

5. The History of Philosophy: Modern. Lectures. (Three times a week.)

6. Ethics, historical and theoretical. Lectures. (Twice a week.)

9. Seminary. Hegel's Logic. (Twice a week.)

10. The Philosophy of Herbert Spencer. Lectures. (Twice a week.)

13. Speculative Psychology. Lectures. (Twice a week.)

14. Seminary. Aristotle's Ethics. (Twice a week.)

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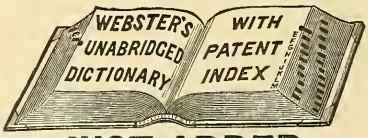

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